### INTERNATIONAL SPACE STATION AND PAYLOAD PROCESSING

# OVERSIZE ELEMENT TRANSPORTATION ON-SITE KSC LOGISTICS PLAN



National Aeronautics and Space Administration John F. Kennedy Space Center

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#### KSC International Space Station & Payload Processing Oversize Element Transportation On-Site KSC Logistics Plan

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#### KSC

### International Space Station & Payload Processing Oversize Element Transportation On-Site KSC Logistics Plan

#### **ABBREVATIONS & ACRONYMS**

CAPPS Checkout, Assembly and Payload Processing Services

CCAFS Cape Canaveral Air Force Station

CRF Canister Rotation facility
GSE Ground Support Equipment
ISS International Space Station
JSC Johnson Space Center
KSC Kennedy Space Center
MSFC Marshall Space Flight Center

NASA National Aeronautics and Space Administration

O&C Operations & Checkout OPR Office of Prime Responsibility

PHS&T Packaging, Handling, Storage and Transportation

P/L Payload

SCM Space Cargo Modified

SCTS Space Cargo Transportation System

SLF Shuttle Landing Facility

SSETS Space Station Element Transportation System

SSPF Space Station Processing Facility

USAF United States Air Force
VPF Vertical Processing Facility

#### **PREFACE**

Oversized elements are described as those elements that are too large/heavy to be shipped by normal commercial methods of transportation. This document describes the Kennedy Space Center (KSC) logistics support plan for the movement and control during the KSC/Cape Canaveral Air Force Station (CCAFS) over-the-road transportation phase of all International Space Station (ISS) oversize elements arriving at KSC, CCAFS or Port Canaveral.

#### SECTION 1.0

#### **INTRODUCTION**

#### 1.1 PURPOSE

The purpose of this plan is to describe in detail the requirements and procedures to be used at KSC for the effective and efficient movement of all oversized ISS elements arriving at KSC in support of ISS operations and processing. The plan describes the procedures and the logistics functions needed to carry out the task of moving major elements of hardware throughout the confines of KSC and in some instances the need to move elements to and from Port Canaveral and CCAFS onto KSC. The plan also defines certain roles and responsibilities between the National Aeronautics & Space Administration (NASA) and the Checkout, Assembly and Payload Processing Services (CAPPS), here in referred to as "the contractor", as well as identifying specific roles and responsibilities of the NASA-KSC ISS Logistics and Payload (P/L) Processing Division (UB-D).

#### 1.2 SCOPE AND APPLICABILITY

The plan is developed to provide the procedures and instructions necessary to effect the safe and efficient movement of major flight and ground elements of the Space Station. The plan is applicable to the organizations that are responsible for the movement of the hardware from the point of arrival to its intended final destination. The organizations include but are not limited to the NASA-KSC ISS Logistics & P/L Processing Division, and CAPPS to the extent specified within the contract.

#### 1.3 AUTHORITY AND PLAN OPR

Specific authority to carry out the tasking and satisfy the requirements is contained within this plan. The plan provides the means to plan, execute, carryout and satisfactorily complete the task of moving elements to it's designated location. The NASA-KSS ISS Logistics & P/L Processing Division (UB-D) is responsible for developing the appropriate KSC logistics plans in support of ISS ground processing operations, and will also function as the prime KSC interface to coordinate the activities outlined in this plan. NASA-KSC ISS Logistics & P/L Processing Division (UB-D) is the Office of Prime Responsibility for this plan; any recommended changes, additions or deletions may be addressed to that office.

#### 1.4 APPLICABLE DOCUMENTS

The following documents are applicable to and were used in the development of this plan:

DOCUMENT NUMBER	<u>TITLE</u>
D684-10041-1-6	Integrated Logistics Support Plan, Vol. 1, Packaging, Handling, Storage and Transportation (PHS&T)
OP 15E-3-50	Joint Operating Procedure/Eastern Space & Missile Center and KSC for Responsibility and Interface for Scheduling, Transporting and Convoy of Oversized Loads between CCAFS and KSC

KMI 6200.1	Movement of Overweight/Over Dimensional Loads at KSC
NSS/GO 1740.9	NASA Safety Standards for Lifting Devices
MSFC Plan 2078	ISS Oversize Element Transportation Plan
MSFC Plan 2516	Space Station Element Transportation System (SSETS) Logistics Plan
SPP 50324	U. S. Oversize Hardware Transportation Roles & Responsibilities

#### SECTION 2.0

#### **ORGANIZATIONAL RESPONSIBILITIES**

#### 2.1 GENERAL

The NASA-KSC ISS Logistics & P/L Processing Division (UB-D) will support and function as the NASA-KSC interface for the movement of ISS oversize elements such as, canisters, cradles, etc. once they arrive at KSC, CCAFS or Port Canaveral. Typical transportation scenarios for the preferred route movement of the elements once they arrive at one of the four locations, the Shuttle Landing Facility (SLF), the CCAFS Skid (Landing) Strip, the KSC Barge Terminal or the Port Canaveral facilities are addressed within this section. Contingency plans will be developed on a case-by-case basis to reroute the convoys due to traffic obstructions, road closures or similar situations, should that become necessary.

### 2.2 NASA-KSC ISS LOGISTICS & PAYLOAD PROCESSING DIVISION (UB-D) RESPONSIBILITIES

The Office will function as the liaison and integrator of the transportation effort to ensure all information and schedules are current and available. For shipments pending arrival at KSC, the Logistics Division will coordinate with the JSC ISS Logistics & Maintenance – ISS Program Office to obtain the shipping dates and other information relative to the pending shipment of oversize elements to KSC, and coordinate the arrival of the shipment at the KSC or CCAFS arrival points. In addition to obtaining transportation information, any special shipping and handling considerations should be identified to KSC; this could include any Hazardous Material (Haz-Mat) considerations involved in the shipment. In addition to the normal safety considerations relative to a Haz-Mat situation, and depending on the arrival point at the KSC and CCAFS area, travel over public roadways may be necessary and therefore requires KSC to obtain, in advance, permits to transport over those roadways. Upon arrival, the Logistics Division will be responsible for operational support during the conveyance of the oversized elements; this includes such activity as arranging for contractor support, convoy escort and security, safety and other operational considerations.

#### 2.3 MODE OF TRANSPORT

In transporting the ISS oversize elements to KSC there are several methods of unique transportation available to NASA and the ISS program, they include:

#### AIRCRAFT:

USAF aircraft / Space Cargo Transportation System (SCTS)
USAF C5 Galaxy Airlifter modified as a Space Cargo Modified (SCM) aircraft (used independent of the SCTS)
NASA Super Guppy
Airbus A300-600 ST Beluga

#### SHIP:

NASA Ocean Barge Commercial Ocean freighter

#### TRUCK:

Commercial Carrier/Vendor Vehicles CAPPS Contractor Transportation

#### 2.4 ARRIVING SHIPMENTS

As previously stated there are several methods of transporting and delivering oversized ISS elements in support of ISS processing and operations at KSC. This plan addresses the various methods of delivery to KSC and the process and procedures needed to transport the oversized elements from the initial arrival (staging) area to the final destination of the elements. In addition, each method addresses the typical transportation arrival scenario associated with that method, reflecting the process and procedures used to effectively and safely complete the transportation task.

#### 2.5 RECEIVING OVERSIZED ELEMENTS

The various methods of receiving oversized ISS elements and transporting to its final destination are addressed within specific Annexes. Refer to Annex A through J for the specific mode of transportation and its associated transportation scenario. Each Annex addresses the following:

Annex A: Activities that are applicable to all the modes of transportation or arrival

points at KSC, CCAFS or Port Canaveral

Annex B: Shipments arriving by USAF SCTS aircraft at the KSC SLF or the

CCAFS Skid (Landing) Strip

Annex C: Shipments arriving by USAF C5 SCM aircraft at the KSC SLF or the

CCAFS Skid (Landing) Strip

Annex D: Shipments arriving by NASA Super Guppy or Commercial aircraft at the

KSC SLF or the CCAFS Skid (Landing) Strip

Annex E: Shipments arriving by Airbus A300-600 ST Beluga aircraft at the KSC

SLF or the CCAFS Skid (Landing) Strip

Annex F: Aircraft arrival scenario (Typical), applicable to Annex's B thru E

Annex G: NASA Barge Terminal arrival scenario (Typical)

Annex H: Shipment arriving by Ocean Freighter at the Port Canaveral government

or commercial facilities

Annex I: Ocean Freighter arrival scenario (Typical)

Annex J: Shipments arriving by Commercial Carrier, Vendor, or Contractor Truck

at KSC

Annex K: Interim Protective Storage Locations

#### 2.6 ELEMENT OVER-THE-ROAD SECURITY

Local law enforcement agencies will provide convoy escort and traffic control when required. Prior arrangements must be made through the proper agency.

#### ANNEX A

### Activities that are applicable to all modes of transportation or arrival points at KSC, CCAFS or Port Canaveral

#### A-1 INTRODUCTION

The activities and tasks identified within this Annex are similar in nature and in the order of events that they are expected to occur, and apply to any ISS oversize element arrival by aircraft at the KSC SLF, the CCAFS Skid (Landing) Strip, by truck to the Processing Facilities at KSC, or by ship at Port Canaveral and the KSC Barge Facility. The activities and tasks identified within this Annex are applicable to all arrivals and/or arrival sites and will be used in conjunction with the specific arrival and arrival site Annexes. Those activities that are pertinent and peculiar either to a certain mode of transportation or to the landing or docking arrival site will be addressed within the specific Annex.

#### A-2 GENERAL

The NASA-KSC ISS Logistics & P/L Processing Division will support and function as the NASA-KSC interface for the movement of the ISS oversize elements once they arrive at one of the arrival points or off-base arrival sites when requested by the shipper and approved by NASA. This Annex contains the process and procedures that are common in nature to all arrivals regardless of mode of transportation or arrival points and should be applied to and carried out in support of Annex B through K which address specific activities associated with the various transportation arrivals. Contingency plans will be developed on a case-by-case basis to re-route the convoy due traffic obstructions, road closures or similar situations, should that become necessary. Road transport of oversized elements on KSC and/or CCAFS will be conducted during off-peak traffic times whenever possible. (Peak traffic times are 0700-0830 and 1530-1700).

#### A-3 THE PROCESS

(A route survey will be performed prior to the arrival of all oversized elements when requested by the NASA-KSC ISS Logistics & P/L Processing Office).

- A-3-1 When approaching and landing at the designated landing site the aircraft will follow standard Air Traffic Control, airfield ground control and support procedures. Truck shipments will stop at the PASS & ID Facility for proper badging and escorts when required. All truck shipments should be routed to the CAPPS Central Receiving Facility (M6-698) when ever possible. Direct delivery to the processing facility can be completed when warranted.
- A-3-2 Support requirements while at the KSC SLF will be identified in the Launch Site Support Plan. Detailed support needs will be identified and coordinated through the NASA-KSC ISS Logistics & P/L Processing Division.
- A-3-3 Availability of support equipment such as cranes, tractor-trailers and forklifts will be coordinated by the NASA-KSC ISS Logistics & P/L Processing Division or the contractor.

**NOTE:** Special or unique ground support equipment required for element handling will normally be provided by the element provider.

A-3-4 The contractor will perform Canister and Tractor-trailer cleaning tasks as needed.

- A-3-5 The aircraft Loadmaster has primary responsibility for the on-load/off-load of the aircraft, the contractor will assist in the on-load/off-load of the aircraft in accordance with standard aircraft procedures.
- A-3-6 The KSC contractor will be responsible for the over-the-road travel of the Canister on KSC, CCAFS, or for off-base transport when the element is transported by the KSC Contractor.
  - **NOTE:** The NASA-KSC ISS Logistics & P/L Processing Division will assure availability of interim protective storage of the assets when needed. See Annex L, "Interim Protective Storage Locations" for additional information, storage locations and routes.
- A-3-7 The contractor will position the Canister and/or the shipping containers in the SSPF Airlock or appropriate staging facility.
  - **NOTE:** Procedures for moving Canisters in and out of the SSPF and subsequent operations are covered by a separate KSC developed work authorization document.
- A-3-8 The NASA-KSC ISS Logistics Office will manage all planning and implementation involving the moving of containers in and out of the SSPF and request support from Launch Support as needed.
- A-3-9 The NASA-KSC ISS Logistics & P/L Processing Division is responsible to monitor the activities associated with the Carrier (i.e. aircraft, truck, or ship) off-load and on-load of the oversize elements and associated Ground Support Equipment (GSE), and the movement of these assets to its destination on KSC or CCAFS.

#### A-4 THE PROCEDURE

- A-4-1 Refer to the applicable Annex depending on mode of transportation or arrival point. The following Annexes address the different mode of transportation and the associated arrival points:
  - Annex B: Shipments arriving by USAF SCTS aircraft at the KSC SLF or the CCAFS Skid (Landing) Strip.
  - Annex C: Shipments arriving by USAF C5 SCM aircraft at the KSC SLF or the
    - CCAFS Skid (Landing) Strip.
  - Annex D: Shipments arriving by NASA Super Guppy aircraft at the KSC SLF or the CCAFS Skid (Landing) Strip.
  - Annex E: Shipments arriving by Airbus A300-600 ST Beluga aircraft at the KSC SLF or the CCAFS Skid (Landing) Strip.
  - Annex F: Aircraft Arrival Scenario (Typical)
  - Annex G: Shipment arriving by the NASA Ocean Barge at the KSC Barge Terminal
    - Terrina
  - Annex H: NASA Barge Arrival Scenario (Typical)

Shipment Arriving by Ocean Freighter at the U.S. government facility or Annex I:

the commercial facility at Port Canaveral

Annex J: Ocean Freighter arrival scenario (typical)

Shipments arriving by Commercial Carrier, Vendor, or Contractor Truck at KSC. Annex K:

#### ANNEX B

### Shipments arriving by USAF SCTS aircraft at the KSC Shuttle Landing Facility (SLF) or the Cape Canaveral Air Force Station (CCAFS) Skid (Landing) Strip

#### **B-1 GENERAL**

This Annex describes the process and procedures required to complete the task of transporting the ISS oversize elements of hardware over-the-road, that arrive at the KSC SLF or the CCAFS Skid (Landing) Strip via the aircraft identified above. Annex A and F are to be used in the performance of this Annex, see Paragraph B-2, below.

Contingency plans will be developed on a case-by-case basis to re-route the convoys due to traffic obstructions, road closures or similar situations, should that become necessary.

#### **B-2 APPLICABLE ANNEXES**

- B-2-1 Comply with Annex A, which describes the general activity in supporting the arrival of the aircraft or ship at one of the arrival points.
- B-2-2 Comply with Annex F, which describes the appropriate over-the-road route to use depending on the aircraft arrival point.

#### **B-3** THE PROCESS

B-3-1 For planning purposes it is anticipated that the United States Air force (USAF) contingent will arrive with the following:

C5 SCM Aircraft
C5 Support Aircraft
Aircraft unique on-loading/off-loading equipment
Canister
Prime Mover
Rear Bogie
5<sup>th</sup> Wheel Dolly

Related GSE

Approximately 28 operations and support personnel

B-3-2 The aircraft Load Master has primary responsibility for the on-load and off-load aircraft as directed by the Load Master.

#### B-4 THE PROCEDURE

B-4-1 See Annex F "Aircraft Arrival Scenario (Typical)" for the detailed procedure in carrying out and completing the tasks in this Annex.

#### ANNEX C

Shipments arriving by the USAF C5 SCM aircraft at the KSC Shuttle Landing Facility (SLF) or the Cape Canaveral Air Force Station (CCAFS) Skid (Landing) Strip

#### C-1 GENERAL

This Annex describes the process and procedures required to complete the task of transporting ISS oversize elements over-the-road that arrives at the KSC SLF or the CCAFS Skid (Landing) Strip via the aircraft identified above. Annex A and F are to be used in the performance of this Annex, see Paragraph C-2.

Contingency plans will be developed on a case-by-case basis to re-route the convoys due to traffic obstructions, road closures or similar situations, should that become necessary.

#### C-2 APPLICABLE ANNEXES

- C-2-1 Comply with Annex A, which describes the general activity in supporting the arrival of the aircraft or ship at one of the arrival points.
- C-2-2 Comply with Annex F, which describes the appropriate over-the-road route to use depending on the arrival point.

#### C-3 THE PROCESS

C-3-1 For planning purposes it is anticipated that the USAF contingent will arrive with the following:

C5 SCM Aircraft
Aircraft unique on-loading/off-loading equipment

C-3-2 The aircraft Load Master has primary responsibility for the on-load and off-load of the aircraft. The contractor will assist in the on-load and off-load of the aircraft as directed by the aircraft Load Master.

#### C-4 THE PROCEDURE

C-4-1 See Annex F "Aircraft Arrival Scenario (Typical)" for the detailed procedure in carrying out and completing the tasks in this Annex.

#### ANNEX D

Shipments arriving by the NASA Super Guppy or Commercial aircraft at the KSC Shuttle Landing Facility (SLF) or the Cape Canaveral Air Force Station (CCAFS)Skid (Landing) Strip

#### D-1 GENERAL

This Annex describes the process and procedures required to complete the task of transporting ISS oversize elements over-the-road, that arrives at the KSC SLF or the CCAFS Skid (Landing) Strip via the aircraft identified above. Annex A and F are to be used in the performance of this Annex, see Paragraph D-2.

Contingency plans will be developed on a case-by-case basis to re-route the convoys due to traffic obstructions, road closures or similar situations, should that become necessary.

#### D-2 APPLICABLE ANNEX'S

- D-2-1 Comply with Annex, A which describes the general activity in supporting the arrival of the aircraft or ship at one of the arrival points.
- D-2-2 Comply with Annex F, which describes the appropriate over-the-road route to use depending on the arrival point.

#### D-3 THE PROCESS

D-3-1 For planning purposes it is anticipated that the NASA contingent will arrive with the following for the Super Guppy Aircraft:

Aircraft unique on-loading/off-loading equipment Cargo Lift Trailers Aircraft Oversize Element Shipping Fixture

- D-3-2 For planning purposes it is anticipated when delivery on a Commercial Airline, special support equipment must be identified and provided on site prior to the aircraft arrival at KSC.
- D-3-3 The aircraft Load Master has primary responsibility for the on-load and off-load of the aircraft, the contractor will assist in the on-load and off-load of the aircraft as directed by the aircraft Load Master.

#### D-4 THE PROCEDURE

D-4-1 See Annex F "Aircraft Arrival Scenario (Typical)" for the detailed procedure in carrying out and completing the tasks in this Annex.

#### ANNEX E

Shipments arriving by the Airbus A300-600 Beluga aircraft at the KSC Shuttle Landing Facility (SLF) or the Cape Canaveral Air Force Station (CCAFS Skid (Landing) Strip

#### E-1 GENERAL

This Annex describes the process and procedures required to complete the task of transporting over-the-road, the ISS oversize elements of hardware that arrives at the KSC SLF or the CCAFS Skid (Landing) Strip via the aircraft identified above. Annex A and F are to be used in the performance of this Annex, see Paragraph E-2.

Contingency plans will be developed on a case-by-case basis to re-route the convoys due to traffic obstructions, road closures or similar situations, should that become necessary.

#### E-2 APPLICABLE ANNEXES

- E-2-1 Comply with Annex, A which describes the general activity in supporting the arrival of the aircraft or ship at one of the arrival points.
- E-2-2 Comply with Annex F, which describes the appropriate, over-the- road route to use depending on the arrival point.

#### E-3 THE PROCESS

E-3-1 The shipment originator will contract with Airbus to transport international cargo to the U.S. using an Airbus A300-600 ST Beluga aircraft. For planning purposes it is anticipated that the shipper will provide:

Airbus A300-600 aircraft Aircraft unique on-load/off-load equipment

- E-3-2 The aircraft Load Master has primary responsibility for the on-load and off-load of the aircraft. The contractor will assist in the on-load and off-load of the aircraft as directed by the aircraft Load Master.
- E-3-3 The NASA-KSC ISS P/L Processing Logistics Division or CAPPS will coordinate the arrangements for the required U.S. government agencies, such as Customs, Immigration, Agricultural and Fish & Wildlife to support the aircraft crew and off-loading of the cargo upon arrival.

#### E-4 THE PROCEDURE

E-4-1 See Annex F "Aircraft Arrival Scenario (Typical)" for the detailed procedure in carrying out and completing the tasks in this Annex.

#### ANNEX F

#### **AIRCRAFT ARRIVAL SCENARIO (Typical)**

#### F-1 INTRODUCTION

**NOTE:** This Annex addresses the tasks, activities and requirements that apply to Annex B thru E

#### F-2 GENERAL

The instructions contained within this Annex are to be used in accomplishing the task of inter-site (CCAFS and KSC) transportation of ISS oversize elements. The procedures are detailed to the level of providing routing for the hardware to it's intended destination. The procedures outlined are applicable and appropriate to the aircraft identified in the preceding Annexes. The procedures differ depending on the aircraft-landing site, i.e., the KSC SLF or the CCAFS Skid (Landing) Strip.

Contingency plans will be developed on a case-by-case basis to re-route the convoys due to traffic obstructions, road closures or similar situations, should that become necessary.

#### F-3 ROUTES FROM THE LANDING SITES TO THE SSPF AND RETURN

•	KSC SLF to the SSPF	(See Paragraph F-5)
•	SSPF to the CRF and return	(See Para F-5, Step 7)
•	SSPF return to KSC SLF	(See Paragraph F-6)
•	CCAFS Skid Strip To The SSPF	(See Paragraph F-8)
•	SSPF return to CCAFS Skid Strip	(See Paragraph F-9)

#### F-4 AIRCRAFT LANDS AT THE KSC SLF

- F-4-1 These instructions apply to the aircraft addressed in this plan.
- F-4-2 The Canister, Shipping Fixtures, Cradles and GSE (or any combination depending on the tasking) are offloaded from the aircraft and prepared for over-the-road movement to the final destination.
- F-4-3 The Oversize Element and GSE are transported over-the-road to the SSPF as discussed in the following paragraphs. If necessary, the equipment used for unloading and loading of hardware from the aircraft (excluding aircraft equipment) will be relocated to a KSC pre-identified inside storage facility.

#### F-5 OVER-THE-ROAD / KSC SLF to the SSPF:

- Step 1 The convoy departs the KSC SLF via the Tow way Road and heads east towards the Kennedy Parkway.
- Step 2 At the intersection of Tow way Road and Kennedy Parkway the convoy will turn south onto the northbound lane of Kennedy Parkway and travel south.

- Step 3 Immediately north of the NASA Parkway overpass, the convoy will turn left onto the westbound exit lane of the NASA Parkway, heading east.
- Step 4 The convoy will travel east on the westbound lane of the NASA Parkway to "E" Avenue.
- Step 5 At the intersection of the NASA Parkway and "E" Avenue, the convoy will turn right (south) onto "E" Avenue. The SSPF Airlock driveway and entrance is on the east side of "E" Avenue approximately 1/8 mile south of the NASA Parkway.
- Step 6 The convoy will turn west into the adjoining parking lot entrance of the O&C (M6-355) and back the vehicle and element east onto the Airlock driveway crossing "E" Avenue and up to the SSPF Airlock door.
- Step 7 At this point, NASA and CAPPS Operations will make a determination weather to have the vehicle and/or transport container sent to the CRF for cleaning.
  - If cleaning is not required, the airlock door will be opened and the element will be backed into the SSPF airlock onto the air-bearing pallet, the tractor will be removed, and the door closed. If the air-bearing pallet is not utilized, the trailer with transport container will be pushed into the airlock by tug.
  - If cleaning is required, the convoy will proceed west to "E" Avenue and turn left. Continue on "E" Avenue to Third Street and turn right onto Third Street heading west. The CRF is located on the right. The vehicle and element will go slightly past the driveway and back into the lot adjacent to the High Bay door.
  - NOTE: With consideration of the size of the element and the driver's confidence, an alternate route to the CRF may be taken. The Convoy route would continue west to "D" Avenue and turn left onto "D" Avenue heading south. Proceed to Fifth Street and turn left heading east to the end at the intersection of Fifth Street and "E" Avenue and turn left heading north. The CRF is on the left. The driver will continue past the entrance to the high bay for enough to back up into the driveway. This allows the driver to back the vehicle turning to the driver's side of the vehicle for better vision.
  - After cleaning, follow in reverse order the same route to return to the SSPF entering the O&C parking lot and backing onto the ramp access to the SSPF Airlock and enter the facility as mentioned above.
  - **NOTE**: In the event the accompanying GSE does not travel as part of the convoy (above), the GSE will convoy to the SSPF using the following procedure.
- Step 8 The GSE convoy departs the KSC-SLF via 32<sup>nd</sup> Street to Kennedy Parkway and turns right (south) onto the southbound lane of the Parkway and proceeds to the NASA Parkway.
- Step 9 The GSE convoy turns left off the Kennedy Parkway onto the eastbound lane of the NASA Parkway and heads east.
- Step 10 The GSE convoy intersects with "E" Avenue and turns right onto "E" Avenue (south) for 1/8 mile then intersects the SSPF Airlock driveway on the left (east) side of "E" Avenue. Turn left onto the Airlock driveway and enter the facility. Pre-arrangement for the GSE to be delivered to the SSPF Receiving Dock and processed through the Hardware Inspection Area for items of a size/weight that would accommodate this process must be coordinated through the NASA ISS Logistics & Payload Processing Division.

#### F-6 OVER-THE-ROAD / SSPF return to KSC SLF

- Step 1 The returning convoy departs the SSPF and turns right (north) onto "E" Avenue to the NASA Parkway intersection.
- Step 2 The convoy turns left onto the westbound lane (heading west) of the NASA Parkway to the Kennedy Parkway on-ramp and crosses the median into the southbound lane and heads north.
- Step 3 The convoy will continue to head north on the Kennedy Parkway intersecting the Tow way Road leading to the KSC SLF, turn left on the Tow way road and head northwest to the aircraft parking area.
  - **NOTE:** In the event the accompanying GSE does not travel as part of the convoy (above), the GSE will convoy from the SSPF using the following procedure:
- Step 4 The returning GSE convoy departs the SSPF and turns right (north) onto "E" Avenue to the NASA Parkway intersection.
- Step 5 The convoy turns left onto the westbound lane (heading west) of the NASA Parkway to the Kennedy Parkway on-ramp and heads north in the northbound lane.
- Step 6 The convoy will continue to head north on the Kennedy Parkway to the intersection of 32<sup>nd</sup> Street leading to the KSC SLF, turn left (north west) on 32<sup>nd</sup> Street to the aircraft parking area.
- **NOTE:** Should the Canister and GSE require storage refer to Paragraph A-3-6 "**NOTE**" for additional guidance.

#### F-7 AIRCRAFT LANDS AT THE CCAFS SKID STRIP

- F-7-1 These instructions apply to the aircraft addressed in this plan.
- F-7-2 The Canister, Shipping Fixtures, Cradles and GSE (or any combination depending on the tasking) are offloaded from the aircraft and prepared for over-the-road travel.
- F-7-3 The Oversize Element and GSE is transported over-the-road to the SSPF and is discussed in the following paragraphs. The equipment used for off-load and on-load of hardware from the aircraft is relocated to a pre-identified inside storage facility when not in use.

#### F-8 OVER THE ROAD / CCAFS SKID STRIP to SSPF:

**OPTION A:** Via NASA Causeway over the Banana River Bridge

**NOTE:** Prior permission/approval must be granted by the NASA ISS Logistics & Payload Processing Division to ensure bridge weight restrictions are met.

- Step 1 Convoy leaves the CCAFS Skid Strip via the Skid Strip Road.
- Step 2 At the intersection of Skid Strip Road and Cape Road the convoy will turn right (north) onto the Cape Road.

- Step 3 At the intersection of Cape Road and NASA Parkway east, turns left and proceed west.
- Step 4 The Convoy will stop prior to the foot of the bridge and wait until all forward members of the Convoy have entirely crossed the bridge. Communications are required to ensure that no additional traffic is on the bridge or will be on the bridge while the element is crossing the bridge.
- Step 5 When all clear is given, the element transporter will proceed over the bridge. When the element transporter has successfully completed the crossing, the remainder of the convoy will be given the okay to proceed.
- Step 6 The Convoy will continue west to the intersection of "E" Avenue and turn left onto "E" Avenue heading south. The SSPF Airlock driveway and entrance is on the east side of "E" Avenue approximately 1/8 mile south of the NASA Parkway.
- Step 7 The Convoy will turn west onto the adjacent parking lot of the O&C (M7-355), and back east onto the Airlock driveway across "E" Avenue up to the SSPF Airlock door.
- Step 8 At this point, NASA and CAPPS Operations will make a determination weather to have the vehicle and/or transport container sent to the CRF for cleaning.
  - If cleaning is not required, the Airlock Door will be opened and the element will be backed into the SSPF Airlock onto the Air-bearing Pallet, the tractor will be removed and the door closed. If the Air-bearing Pallet is not utilized, the trailer with transport container will be pushed into the airlock by tug.
  - If cleaning is required, the convoy will proceed west to "E" Avenue and turn left. Continue on "E" Avenue to Third Street and turn right onto Third Street heading west. The CRF is located on the right. The vehicle and element will go slightly past the driveway and back into the lot adjacent to the High Bay door.
  - NOTE: With consideration of the size of the element and the driver's confidence, an alternate route to the CRF may be taken. The Convoy route would continue west to "D" Avenue and turn left onto "D" Avenue heading south. Proceed to Fifth Street and turn left heading east to the end at the intersection of Fifth Street and "E" Avenue and turn left heading north. The CRF is on the left. The diver will continue past the entrance to the high bay far enough to back up into the driveway. This allows the driver to back the vehicle turning to the driver's side of the vehicle for better vision.
  - After cleaning, follow in reverse order the same route to return to the SSPF entering the O&C parking lot and backing onto the ramp access to the SSPF Airlock and enter the facility as mentioned above.
- **OPTION B:** Via Cape Road north to Complex 39 and south to the SSPF.
  - **NOTE:** This route requires the Convoy to travel over a roadway that has a considerable side embankment and should be surveyed prior to departure.
- Step 1 Convoy leaves the CCAFS Skid Strip via the Skid Strip Road.
- Step 2 At the intersection of Skid Strip Road and Cape Road the Convoy will turn right (north) onto the Cape Road.

- Step 3 At the intersection of Cape Road and Saturn Causeway, the Convoy turns left and travels west on Saturn Road to the intersection of Saturn Road and Contractor Road and turns left (south).
- Step 4 The Convoy travels south on Contractor road to the Schwartz Road intersection, turns right onto Schwartz and travels west continuing to the Kennedy parkway intersection. The Convoy then turns left and proceeds south in the northbound lane.
- Step 5 The Convoy travels south on Kennedy Parkway to immediately north of the NASA Parkway (Causeway) overpass. The Convoy will then proceed up the NASA Parkway exit ramp (heading eastbound) onto the westbound lane of the NASA Parkway, and head east.
- Step 6 The Convoy will travel east in the westbound lane to "E" Avenue. At the "E" Avenue intersection the Convoy will turn right (south) onto "E" Avenue. The SSPF Airlock driveway and entrance is on the east side of "E" Avenue approximately 1/8 mile south of the NASA Parkway.
- Step 7 The Convoy will turn west into the adjacent parking lot of the O&C (M7-355) and back east onto the Airlock driveway across "E" Avenue in front of the SSPF Airlock door.
- Step8 At this point, NASA and CAPPS Operations will make a determination weather to have the vehicle and/or transport container sent to the CRF for cleaning.
  - If cleaning is not required, the Airlock Door will be opened and the element will be backed into the SSPF Airlock onto the Air-bearing Pallet, the tractor will be removed and the door closed. If the Air-bearing Pallet is not utilized, the trailer with transport container will be pushed into the airlock by tug.
  - If cleaning is required, the convoy will proceed west to "E" Avenue and turn left.
    Continue on "E" Avenue to Third Street and turn right onto Third Street heading west.
    The CRF is located on the right. The vehicle and element will go slightly past the driveway and back into the lot adjacent to the High Bay door.
  - NOTE: With consideration of the size of the element and the driver's confidence, an alternate route to the CRF may be taken. The Convoy route would continue west to "D" Avenue and turn left onto "D" Avenue heading south. Proceed to Fifth Street and turn left heading east to the end at the intersection of Fifth Street and "E" Avenue and turn left heading north. The CRF is on the left. The diver will continue past the entrance to the high bay far enough to back up into the driveway. This allows the driver to back the vehicle turning to the driver's side of the vehicle for better vision.

After cleaning, follow in reverse order the same route to return to the SSPF entering the O&C parking lot and backing onto the ramp access to the SSPF Airlock and enter the facility as mentioned above.

#### F-9 OVER-THE-ROAD / SSPF return to CCAFS SKID STRIP:

OPTION A: Via NASA Parkway over the Banana River Bridge

Step 1 The convoy exits the SSPF and turns right onto "E" Avenue. Proceeding north to the intersection of "E" Avenue and NASA Parkway.

- Step 2 The Convoy will turn left onto the NASA Parkway heading east and continue to the intersection of Cape Road.
- Step 3 Turn right (south) onto Cape Road and proceed to the intersection of Skid Strip Road.
- Step 4 Convoy will turn left (east) onto Skid Strip Road and proceed to the Skid Strip Facility.
- **OPTION B:** Via Kennedy Parkway to Saturn Parkway to Cape Road.
  - **NOTE:** this route requires the Convoy to travel over a roadway that has a considerable side embankment and should be surveyed prior to departure.
- Step 1 The Convoy exits the SSPF and turns right onto "E" Avenue and NASA Parkway. Next, the convoy turns west on to the westbound lane of the NASA Parkway proceeds to the Kennedy Parkway entrance ramp and turns on to the ramp.
- Step 2 The Convoy then proceeds north on the northbound lane of the Kennedy Parkway to the Schwartz Road intersection and turns right onto Schwartz Road heading east.
- Step 3 Travel east on Schwartz Road to the Contractor Road intersection. Turn left (north) onto Contractor Road, travel to the Saturn Causeway intersection and turn right (east).
- Step 4 Continue to travel east on Saturn Causeway to the Cape Road intersection and turn right (south). Travel on Cape Road to the CCAFS Skid Strip Road intersection and turn left (east) onto Skid Strip Road.
- Step 5 Proceed on Skid Strip Road east bound to the Skip Strip facility.

#### ANNEX G

#### NASA BARGE TERMINAL ARRIVAL SCENARIO (Typical)

#### G-1 GENERAL

This Annex describes the process and procedures required to complete the task of transporting over-the-road, the ISS oversize elements of hardware that arrives at the NASA KSC Barge Terminal. Prior arrangements must be made with the Marine Operations at (321) 853-3789 to ensure the use of the Barge Terminal is available and that the ship involved meets the maximum depth requirements for this area (draft of no more then 10 feet) and other barge schedules. Unbadged foreign nationals arriving on the Ship at the Government Facility will not be allowed to debark the ship while at the facility. See Paragraph H-2.

**NOTE:** Ship dimensions should be communicated prior to departure from Home Port to ensure compatibili8ty of the ship to our Barge Terminal.

#### G-2 APPLICABLE ANNEX

G-2-1 Comply with Annex A (Describes the activity in supporting the arrival of the ship at one of the arrival point).

#### G-3 PROCESS AT THE KSC BARGE TERMINAL

- G-3-1 NASA BARGE ARRIVES AT THE KSC BARGE TERMINAL
- G-3-1-1 These instructions apply to the ship (barge) addressed in this annex.
- G-3-1-2 The Canister, Shipping Fixtures, Cradles and GSE (or any combination depending on the tasking) are offloaded from the barge and prepared for overthe-road movement to the final destination. The barge will remain at the KSC Terminal facility or return to its point of origin.

#### G-4 OVER-THE-ROAD / KSC BARGE TERMINAL to the SSPF

- Step 1 Convoy departs the Terminal via Saturn Causeway west to Contractor Road.
- Step 2 At intersection of Saturn Causeway and Contractor Road, the Convoy turns left on to Contractor Road and heads south to Schwartz Road.
- Step 3 At the Contractor and Schwartz Road's intersection the Convoy will turn right on to Schwartz Road and head west to Kennedy Parkway.
- Step 4 At the intersection or Schwartz Road and Kennedy parkway the Convoy will turn left onto the Kennedy Parkway on the northbound lane and head south to the NASA Parkway.
- Step 5 Immediately north or the NASA Parkway overpass the Convoy will turn onto the westbound exit lane of the NASA Parkway.
- Step 6 The Convoy will proceed east on the NASA Parkway westbound lane to "E" Avenue. The Convoy will then turn right (south) on to "E" Avenue and proceed south to the SSPF.

- Step 7 The Convoy will turn west into the adjacent parking lot of the O&C (M7-355) and back east onto the Airlock driveway across "E" Avenue in front of the SSPF Airlock door.
- Step 8 At this point, NASA and CAPPS Operations will make a determination weather to have the vehicle and/or transport container sent to the CRF for cleaning.
  - If cleaning is not required, the Airlock Door will be opened and the element will be backed into the SSPF Airlock onto the Air-bearing Pallet, the tractor will be removed and the door closed. If the Air-bearing Pallet is not utilized, the trailer with transport container will be pushed into the airlock by tug.
  - If cleaning is required, the convoy will proceed west to "E" Avenue and turn left.
     Continue on "E" Avenue to Third Street and turn right onto Third Street heading west.
     The CRF is located on the right. The vehicle and element will go slightly past the driveway and back into the lot adjacent to the High Bay door.

NOTE: With consideration of the size of the element and the driver's confidence, an alternate route to the CRF may be taken. The Convoy route would continue west to "D" Avenue and turn left onto "D" Avenue heading south. Proceed to Fifth Street and turn left heading east to the end at the intersection of Fifth Street and "E" Avenue and turn left heading north. The CRF is on the left. The diver will continue past the entrance to the high bay far enough to back up into the driveway. This allows the driver to back the vehicle turning to the driver's side of the vehicle for better vision.

After cleaning, follow in reverse order the same route to return to the SSPF entering the O&C parking lot and backing onto the ramp access to the SSPF Airlock and enter the facility as mentioned above.

#### G-5 OVER-THE-ROAD /SSPF return to KSC BARGE TERMINAL

- **NOTE:** After the payload is removed from its container or other fixtures the containers and/or the fixtures will return to the KSC Barge Terminal or KSC storage facility. If the elements are to be stored in a KSC facility the route and the time of movement will be determined at the time of the activity. Should the elements return to the Barge Terminal from the SSPF it will travel the following route.
- Step 1 Exit the SSPF Airlock driveway turning north on "E" Avenue to the NASA Parkway, turning onto the westbound lane of the Parkway and head west to the Kennedy Parkway on-ramp.
- Step 2 Enter the northbound lane of the Kennedy parkway, head north toward the Vehicle Assembly Building.
- Step 3 The Convoy will turn onto Schwartz Road to Contractor Road and transit Contractor Road to Saturn Causeway, turn right and travel east to the KSC Barge Terminal.

#### ANNEX H

### Shipment Arriving by Ocean Freighter at the Port Canaveral Government or Commercial Facilities

#### H-1 GENERAL

This Annex describes the process and procedures required to complete the task of transporting over-the-road, ISS oversize elements of hardware that arrive at Port Canaveral Government or Commercial facilities. Unbadged foreign nationals arriving on the Ship at the Government Facility will not be allowed to debark the ship while at the facility. See Paragraph I-2.

Contingency plans will be developed on a case-by-case basis to re-route the Convoys due to traffic obstructions, road closures or similar situations, should that become necessary.

#### H-2 APPLICABLE ANNEX

H-2-1 Comply with Annex A (Describes the activity in supporting the arrival of the ship at one of the arrival points).

#### H-3 THE PROCESS

- H-3-1 The ocean freighter will arrive and dock at either the Port Canaveral government facility or the commercial facility; the instructions below address both possible docking.
- H-3-2 When the ocean freighter originates from an overseas point of origin, the NASA-KSC ISS Logistics & Payload Processing Division and CAPPS will coordinate the arrangements for the required U.S. government agencies, such as Customs, Immigration, agricultural and Fish & Wildlife to support the arriving ship, its crew and the off-loading of the cargo.
- H-3-3 The oversized element shipping container and fixture will be off-loaded by driving off the ship or by dockside cranes depending upon the ship configuration.
- H-3-4 In the event the container and fixture have their own trailer(s), CAPPS will provide a tractor to tow the elements over-the-road to the SSPF.
- H-3-5 The NASA-KSC ISS logistics & Payload Processing Division will be responsible for developing the applicable procedures contained within this Annex.
- H-3-6 The NASA-KSC ISS logistics & Payload Processing Division is responsible to monitor the activities associated with the Carrier (i.e. aircraft or ship) off-load of the oversize elements and the movement of these assets to its intended destination at KSC or CCAFS.

#### H-4 THE PROCEDURE

H-4-1 See Annex I "Ocean Freighter arrival Scenario (Typical)" for the detailed procedure in carrying out and completing the task in this Annex.

#### **ANNEX** I

#### **OCEAN FREIGHTER ARRIVAL SCENARIO (Typical)**

#### I-1 GENERAL

The instructions contained within this Annex are the instructions to be used in accomplishing the task of inter-site (CCAFS and KSC) transportation of ISS oversize elements. The instructions or procedures are detailed to the level of providing en-route directions for the hardware to its intended destination. The procedures outlined are applicable and appropriate to the ships identified in Annex G and H. Unbadged foreign nationals arriving on the ship at the Government Facility will not be allowed to debark the ship while at the facility. Prior approval must be obtained through the NASA-KSC ISS logistics & Payload processing Division for oversized elements to ensure the weight restrictions are not exceeded.

Contingency plans will be developed on a case-by-case basis to re-route the convoys due to traffic obstructions, road closures or similar situations, should that become necessary.

#### I-2 OCEAN FREIGHTER DOCKS AT THE PORT CANAVERAL FACILITY:

- I-2-1 These instructions apply to the transportation mode addressed in Annex H.
- I-2-2 Paragraph I-2-3 applies to the routing instructions outlined in Paragraphs I-3 and I-4.
- I-2-3 The Canister, Shipping Fixtures, Cradles and GSE (or any combination depending on the tasking) are offloaded from the ship and prepared for over-the-road movement to the final destination. The ship may or may not remain at the port facility.

#### I-3 OVER-THE-ROAD / PORT CANAVERAL GOVERNMENT FACILITY to the SSPF

**OPTION A:** Via NASA Causeway over the Banana River Bridge

**NOTE:** Prior permission/approval must be granted by the NASA ISS Logistics & Payload Processing Division to ensure bridge weight restrictions are not exceeded. NASA-KSC ISS Logistics & Payload Processing Division in conjunction with the appropriate port Authority will provide egress routes from the Post based on the arrival and position of the vessel.

- Step 1 The convoy will turn on the Sam C. Phillips Parkway heading north in the northbound lane to the Spin test Road crossover. The Convoy will turn at the crossover onto the southbound lane to Sam C. Phillips parkway heading north.
- Step 2 At the split of Sam C. Phillips Parkway and Hanger Road, the Convoy will continue on Hanger Road heading north through the CCAFS Industrial Area to the intersection of NASA Causeway and Hanger Road.
- Step 3 At the intersection of Hanger Road and NASA Causeway, the Convoy will turn left (west) onto the NASA Causeway and proceed west.
- Step 4 The Convoy will stop prior to the foot of the bridge and wait until all forward members of the convoy have entirely crossed the bridge. Communications are required to ensure

- that no additional traffic is on the bridge or will be on the bridge while the element is crossing the bridge.
- Step 5 When all clear is given the transporter will proceed over the bridge. When the element transporter has successfully completed the crossing, the remainder of the Convoy will be given the okay to proceed.
- Step 6 The Convoy will continue west to the intersection of "E" Avenue and turn left onto "E" Avenue heading south. The SSPF Airlock driveway and entrance is on the east side of "E" Avenue approximately 1/8 mile south of the NASA Parkway.
- Step 7 The convoy will turn west into the adjacent parking lot of the O&C (M7-355) and back east across "E" Avenue onto the Airlock driveway up to the SSPF Airlock door.
- Step 8 At this point, NASA and CAPPS Operations will make a determination weather to have the vehicle and/or transport container sent to the CRF for cleaning.
  - If cleaning is not required, the Airlock Door will be opened and the element will be backed into the SSPF Airlock onto the Air-bearing Pallet, the tractor will be removed and the door closed. If the Air-bearing Pallet is not utilized, the trailer with transport container will be pushed into the airlock by tug.
  - If cleaning is required, the convoy will proceed west to "E" Avenue and turn left.
    Continue on "E" Avenue to Third Street and turn right onto Third Street heading west.
    The CRF is located on the right. The vehicle and element will go slightly past the driveway and back into the lot adjacent to the High Bay door.
  - NOTE: With consideration of the size of the element and the driver's confidence, an alternate route to the CRF may be taken. The Convoy route would continue west to "D" Avenue and turn left onto "D" Avenue heading south. Proceed to Fifth Street and turn left heading east to the end at the intersection of Fifth Street and "E" Avenue and turn left heading north. The CRF is on the left. The diver will continue past the entrance to the high bay far enough to back up into the driveway. This allows the driver to back the vehicle turning to the driver's side of the vehicle for better vision.

After cleaning, follow in reverse order the same route to return to the SSPF entering the O&C parking lot and backing onto the ramp access to the SSPF Airlock and enter the facility as mentioned above.

OPTION B: Via Sam C. Phillips Parkway to Pad A/LC-39 Area

**NOTE:** NASA-KSC ISS Logistics and Payload Processing Division in conjunction with the appropriate Port Authority will provide egress routes from the Port based on the arrival and position of the vessel.

**NOTE:** This route requires the Convoy to travel over a roadway that has a considerable side embankment and should be surveyed prior to departure.

Step 1 The Convoy will turn on the Sam C. Phillips Parkway heading north in the northbound lane to the Spin Test Road crossover. The Convoy will turn at the crossover onto the southbound lane of Sam C. Phillips Parkway heading north.

- Step 2 At the split of Sam C. Phillips Parkway and Hanger Road the Convoy will continue on Hanger Road heading north through the CCAFS Industrial Area to the Sam C. Phillips Parkway and Hanger Road north intersection and turn north (left).
- Step 3 At the intersection of the Sam C. Phillips Parkway and Saturn Causeway the Convoy will turn left and travel west on the Saturn Causeway.
- Step 4 Proceed to the intersection of Saturn Causeway and Contractor Road where the Convoy will turn left onto Contractor Road and heads south to Schwartz Road.
- Step 5 At intersection of Contractor and Schwartz Road's, the Convoy will turn right onto Schwartz Road and head west to Kennedy Parkway.
- Step 6 At the intersection or Schwartz Road and Kennedy Parkway the Convoy will turn left onto the Kennedy Parkway on the northbound lane and head south to the NASA Parkway.
- Step 7 Immediately north of the NASA Parkway overpass the Convoy will turn east onto the westbound exit lane of the NASA Parkway.
- Step 8 The Convoy will proceed east on the NASA Parkway westbound lane to "E" Avenue. The Convoy will then turn right (south) onto "E" Avenue and proceed south to the SSPF.
- Step 9 At this point, NASA and CAPPS Operations will make a determination weather to have the vehicle and/or transport container sent to the CRF for cleaning.
  - If cleaning is not required, the Airlock Door will be opened and the element will be backed into the SSPF Airlock onto the Air-bearing Pallet, the tractor will be removed and the door closed. If the Air-bearing Pallet is not utilized, the trailer with transport container will be pushed into the airlock by tug.
  - If cleaning is required, the convoy will proceed west to "E" Avenue and turn left. Continue on "E" Avenue to Third Street and turn right onto Third Street heading west. The CRF is located on the right. The vehicle and element will go slightly past the driveway and back into the lot adjacent to the High Bay door.

NOTE: With consideration of the size of the element and the driver's confidence, an alternate route to the CRF may be taken. The Convoy route would continue west to "D" Avenue and turn left onto "D" Avenue heading south. Proceed to Fifth Street and turn left heading east to the end at the intersection of Fifth Street and "E" Avenue and turn left heading north. The CRF is on the left. The diver will continue past the entrance to the high bay far enough to back up into the driveway. This allows the driver to back the vehicle turning to the driver's side of the vehicle for better vision.

After cleaning, follow in reverse order the same route to return to the SSPF entering the O&C parking lot and backing onto the ramp access to the SSPF Airlock and enter the facility as mentioned above.

#### I-4 OVER-THE-ROAD / PORT CANAVERAL COMMERCIAL FACILITY to the SSPF

**NOTE:** In advance of the arrival of the oversized elements NASA and CAPPS Transportation will contact local and state agencies for the necessary permits

and escorts to travel over-the-road on the public right-of-ways. In addition, should the shipment contain hazardous material CAPPS Transportation must make the necessary arrangements for placards. Prior approval must be obtained through the NASA-KSC ISS logistics & Payload Processing Division for oversized elements to ensure the weight restrictions are no exceeded.

OPTION A: Via NASA Causeway over the Banana River Bridge

- **NOTE:** NASA-KSC ISS Logistics and Payload Processing Division in conjunction with the appropriate Port Authority will provide egress routes from the Port based on the arrival and position of the vessel.
- Step 1 The Convoy will turn on the Sam C. Phillips Parkway heading north in the northbound lane to the Spin test Road crossover. The Convoy will turn at the crossover onto the southbound lane of Sam C. Phillips Parkway heading north.
- Step 2 At the split of Sam C. Phillips Parkway and Hanger Road the Convoy will continue on Hanger Road heading north through the CCAFS industrial Area to the intersection of NASA Causeway and hanger Road.
- Step 3 At the intersection of Hanger Road and NASA Causeway the Convoy will turn left (west) onto the NASA Causeway and proceed west.
- Step 4 The Convoy will stop prior to the foot of the bridge and wait until all forward members of the Convoy have entirely crossed the bridge. Communications are required to ensure that no additional traffic is on the bridge or will be on the bridge while the element is crossing the bridge.
- Step 5 When all clear is given the element transporter will proceed over the bridge. When the element transporter has successfully completed the crossing, the remainder of the Convoy will be given the okay to proceed.
- Step 6 The Convoy will continue west to the intersection of "E" Avenue and turn left onto "E" Avenue heading south. The SSPF Airlock driveway and entrance is on the east side of "E" Avenue approximately 1/8 mile south of the NASA Parkway.
- Step 7 The Convoy will turn west into the adjacent parking lot of the O&C (M7-355) and back east across "E" Avenue onto the Airlock driveway up to the SSPF Airlock door.
- Step 8 At this point, NASA and CAPPS Operations will make a determination weather to have the vehicle and/or transport container sent to the CRF for cleaning.
  - If cleaning is not required, the Airlock Door will be opened and the element will be backed into the SSPF Airlock onto the Air-bearing Pallet, the tractor will be removed and the door closed. If the Air-bearing Pallet is not utilized, the trailer with transport container will be pushed into the airlock by tug.
  - If cleaning is required, the convoy will proceed west to "E" Avenue and turn left.
    Continue on "E" Avenue to Third Street and turn right onto Third Street heading west.
    The CRF is located on the right. The vehicle and element will go slightly past the driveway and back into the lot adjacent to the High Bay door.

NOTE: With consideration of the size of the element and the driver's confidence, an alternate route to the CRF may be taken. The Convoy route would continue west to "D" Avenue and turn left onto "D" Avenue heading south. Proceed to Fifth Street and turn left heading east to the end at the intersection of Fifth Street and "E" Avenue and turn left heading north. The CRF is on the left. The diver will continue past the entrance to the high bay far enough to back up into the driveway. This allows the driver to back the vehicle turning to the driver's side of the vehicle for better vision.

After cleaning, follow in reverse order the same route to return to the SSPF entering the O&C parking lot and backing onto the ramp access to the SSPF Airlock and enter the facility as mentioned above.

OPTION B: Via Sam C. Phillips Parkway around Pad A/LC-39 Area

**NOTE:** NASA-KSC ISS Logistics and Payload Processing Division in conjunction with the appropriate Port Authority will provide egress routes from the Port based on the arrival and position of the vessel.

**NOTE:** This route requires the Convoy to travel over a roadway that has a considerable side embankment and should be surveyed prior to departure.

- Step 1 The Convoy will turn on the Sam C. Phillips Parkway heading north in the northbound lane to the Spin Test Road crossover. The Convoy will turn at the crossover onto the southbound lane of Sam C. Phillips Parkway heading north.
- Step 2 At the split of Sam C. Phillips Parkway and Hanger Road, the Convoy will continue on Hanger Road heading north through the CCAFS Industrial Area to the Sam C. Phillips Parkway and Hanger Road north intersection and turn north (left) and continue north.
- Step 3 At the intersection of the Sam C. Phillips Parkway and Saturn Causeway the Convoy turns left onto the Saturn Causeway and heads west.
- Step 4 Proceed to the intersection of Saturn Causeway and Contractor Road, the Convoy turns left onto Contactor Road and heads south to Schwartz Road.
- Step 5 At intersection of Contractor and Schwartz Road's the Convoy will turn right onto Schwartz Road and head west to Kennedy Parkway.
- Step 6 At the intersection of Schwartz Road and Kennedy Parkway the Convoy turns left onto the Kennedy Parkway (northbound lane) and heads south to NASA Parkway.
- Step 7 Immediately north of the NASA Parkway overpass the Convoy will turn east onto the westbound exit lane of the NASA Parkway.
- Step 8 Convoy proceeds east on the NASA Parkway westbound lane to "E" Avenue, the Convoy turns right onto "E" Avenue proceeding to the SSPF.
- Step 9 At this point, NASA and CAPPS Operations will make a determination weather to have the vehicle and/or transport container sent to the CRF for cleaning.

- If cleaning is not required, the Airlock Door will be opened and the element will be backed into the SSPF Airlock onto the Air-bearing Pallet, the tractor will be removed and the door closed. If the Air-bearing Pallet is not utilized, the trailer with transport container will be pushed into the airlock by tug.
- If cleaning is required, the convoy will proceed west to "E" Avenue and turn left. Continue on "E" Avenue to Third Street and turn right onto Third Street heading west. The CRF is located on the right. The vehicle and element will go slightly past the driveway and back into the lot adjacent to the High Bay door.

NOTE: With consideration of the size of the element and the driver's confidence, an alternate route to the CRF may be taken. The Convoy route would continue west to "D" Avenue and turn left onto "D" Avenue heading south. Proceed to Fifth Street and turn left heading east to the end at the intersection of Fifth Street and "E" Avenue and turn left heading north. The CRF is on the left. The diver will continue past the entrance to the high bay far enough to back up into the driveway. This allows the driver to back the vehicle turning to the driver's side of the vehicle for better vision.

After cleaning, follow in reverse order the same route to return to the SSPF entering the O&C parking lot and backing onto the ramp access to the SSPF Airlock and enter the facility as mentioned above.

#### ANNEX J

# Shipment Arriving by Commercial Carrier, Vendor, or Contractor Truck at KSC

## J-1 GENERAL

This Annex describes the process and procedures required to complete the task of transporting over-the-road onto KSC, the ISS oversize elements of hardware that arrive by commercial or contractor trucks to the CAPPS Receiving Facility, M6-698 or directly to the appropriate processing facility. Annex A, for general activities, is to be used in the performance of this Annex, see paragraph K-2.

Contingency plans will be developed on a case-by-case basis to re-route the convoys due to traffic obstructions, road closures or similar situations, should that become necessary.

#### J-2 APPLICABLE ANNEX

J-2-1 Comply with Annex A that describes the general activity supporting the arrival of the truck at the arrival points.

## J-3 THE PROCESS

- J-3-1 Shipments using Un-Badged Commercial Carrier and Vendor Truck personnel.
- J-3-1-1 Authorization for the transport of elements/loads that are not over the weight restrictions for the Indian River Bridge can to be delivered by truck to KSC. This also applies to all other access bridges to KSC or CCAFS.
- J-3-1-2 The NASA-KSC ISS Logistics & Payload Processing Division is responsible to monitor the activities associated with the Carrier transport, off-load, or on-load of the oversize elements and the subsequent movement of these elements to their intended destination on KSC.
- J-3-1-3 Commercial Carriers/Vendors will normally arrive at the Pass & ID Facility to obtain KSC badging and escorts. It is required that the Carrier coordinate with NASA-KSC ISS Logistics & Payload Processing Division 14 days prior to the element arrival at KSC to ensure badging is correct and available prior to arrival to eliminate delays. Upon arrival at the Pass & ID Facility, the driver or a representative for the element should contact the CAPPS Receiving Office (phone number available from Security Personnel) to arrange escorts. Drivers must be U.S. Citizens or have/maintain a current Green Card with the proper certification.
- J-3-1-4 The Convoy will depart the Pass & ID Facility heading east on NASA Parkway. The Commercial Carrier will follow the escort to the CAPPS Receiving Facility, M6-698 for normal deliveries, or directly to the appropriate processing facility if required for safety reasons. The receipt will be processed into the Receiving database for proof of delivery. If possible, a visual container inspection for damage will be performed at the Central Receiving facility. If this is not possible due to the size or quantity of containers, the inspection will be conducted at the SSPF or appropriate processing facility during the offload.

- J-3-1-5 The commercial Carrier vehicle, with the element, will be escorted to the processing facility or to the cleaning facility if required. Determination for cleaning will be made by CAPPS operations personnel with NASA concurrence prior to off-loading.
  - If cleaning is required, the convoy will proceed west to "E" Avenue and turn left. Continue on "E" Avenue to Third Street and turn right onto Third Street heading west. The CRF is located on the right. The vehicle and element will go slightly past the driveway and back into the lot adjacent to the High Bay door.
  - **NOTE:** With consideration of the size of the element and the driver's confidence, an alternate route to the CRF may be taken. The Convoy route would continue west to "D" Avenue and turn left onto "D" Avenue heading south. Proceed to Fifth Street and turn left heading east to the end at the intersection of Fifth Street and "E" Avenue and turn left heading north. The CRF is on the left. The diver will continue past the entrance to the high bay far enough to back up into the driveway. This allows the driver to back the vehicle turning to the driver's side of the vehicle for better vision.
- J-3-1-6 Element transport containers of a size and construction that are approved to be lifted by forklift, will be off-loaded at the SSPF Receiving Dock and transported by forklift into the Hardware Inspection Area. This effort will be utilized whenever possible to eliminate the un-necessary requirement of crane lifts. CAPPS Transportation personnel will off-load the carrier vehicle at the SSPF Receiving dock and move the containers into the facility by forklift. CAPPS Operations personnel will conduct any off-loading of the element when overhead cranes are required.
- J-3-2 Shipments using KSC Badged Commercial Carrier or Vendor Truck personnel.
- J-3-2-1Authorization for the transport of elements/loads that are not over the weight restrictions for the Indian River Bridge can to be delivered by truck to KSC. This also applies to all access bridges to KSC or CCAFS.
- J-3-2-2 The NASA-KSC ISS Logistics & Payload Processing Division is responsible to monitor the activities associated with the Carrier transport, off-load, or on-load or the oversize elements and the subsequent movement of these elements to their intended destination on KSC.
- J-3-2-3 Carrier/Vendor delivered elements that require escorts must stop at the Pass & ID Facility to obtain KSC escorts. Delivery of elements that do not require an escort can proceed directly to the CAPPS Receiving Facility, M6-698.
- J-3-2-4 The Carrier/Vendor delivery truck or Convoy will proceed to the CAPPS Receiving Facility, M6-698. (Elements of excessive size can be escorted directly to the Processing Facility). The receipt will be processed into the Receiving database for proof of delivery. If this is not possible due to the size and quantity of containers, the inspection will be conducted at the SSPF or appropriate processing facility during the off-load.
- J-3-2-5 Upon completion of the receipt process, the Commercial Carrier/Vendor truck will be escorted to the SSPF. Determination for cleaning will be made by CAPPS Operations personnel with NASA concurrence prior to off-loading. If cleaning is required, CAPPS Operation personnel will determine if cleaning can be

accomplished hand wiping at the SSPF Hardware Inspection Area or the element will be escorted to the CRF for cleaning.

- If cleaning is required, the convoy will proceed west to "E" Avenue and turn left.
  Continue on "E" Avenue to Third Street and turn right onto Third Street heading west.
  The CRF is located on the right. The vehicle and element will go slightly past the
  driveway and back into the lot adjacent to the High Bay door.
- **NOTE:** With consideration of the size of the element and the driver's confidence, an alternate route to the CRF may be taken. The Convoy route would continue west to "D" Avenue and turn left onto "D" Avenue heading south. Proceed to Fifth Street and turn left heading east to the end at the intersection of Fifth Street and "E" Avenue and turn left heading north. The CRF is on the left. The diver will continue past the entrance to the high bay far enough to back up into the driveway. This allows the driver to back the vehicle turning to the driver's side of the vehicle for better vision.
- J-3-2-6 Element transport containers of a size and construction that are approved to be lifted by forklift, will be off-loaded at the SSPF Receiving Dock and transported by forklift into the Hardware Inspection Area. This effort will be utilized whenever possible to eliminate the un-necessary requirement of crane lifts. CAPPS Transportation personnel will off-load the commercial carrier vehicle at the SSPF Receiving dock and move the containers into the facility by forklift. CAPPD Operations personnel will conduct any off-loading of the element when overhead cranes are required.
- J-3-3 Shipments using CAPPS transportation personnel and Trucks
- J-3-3-1 There will not be a requirement to stop at Pass & ID for CAPPS Transportation truck. Prior coordination is required to ensure the Element and vehicle is under the Bridge weight restrictions for the intended route.
- J-3-3-2 The NASA-KSC ISS Logistics & Payload Processing Division is responsible to monitor the activities associated with Carrier transport, off-load, or on-load of the oversize elements and the subsequent movement of these elements to their intended destination on KSC.
- J-3-3-3 The CAPPS Transportation delivery truck and/or Convoy will proceed to the CAPPS Receiving Facility, M6-698. (Elements of excessive size can be escorted directly to the Processing Facility). The receipt of shipment will be processed into the Receiving database for proof of delivery. If possible, a visual container inspection for damage will be performed at Receiving. If this is not possible due to the size and quantity of containers, the inspection will be conducted at the SSPF or appropriate processing facility during the off-loading process.
- J-3-3-4 Upon completion of the receipt process, the convoy/element will be escorted to the SSPF. Determination for cleaning will be made by CAPPS Operations personnel with NASA concurrence prior to off-loading. If cleaning is required, CAPPS Operations personnel will determine if cleaning can be accomplished by hand wiping in the SSPF hardware Inspection Area. If this cannot be accomplished, the element will be transported by escort to the CRF for cleaning.
  - If cleaning is required, the convoy will proceed west to "E" Avenue and turn left.
     Continue on "E" Avenue to Third Street and turn right onto Third Street heading west.

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The CRF is located on the right. The vehicle and element will go slightly past the driveway and back into the lot adjacent to the High Bay door.

**NOTE:** With consideration of the size of the element and the driver's confidence, an alternate route to the CRF may be taken. The Convoy route would continue west to "D" Avenue and turn left onto "D" Avenue heading south. Proceed to Fifth Street and turn left heading east to the end at the intersection of Fifth Street and "E" Avenue and turn left heading north. The CRF is on the left. The diver will continue past the entrance to the high bay far enough to back up into the driveway. This allows the driver to back the vehicle turning to the driver's side of the vehicle for better vision.

# ANNEX K

## **INTERIM PROTECTIVE STORAGE LOCATIONS**

# K-1 GENERAL

The NASA-KSC Logistics & Payload Processing Division will assure interim protective storage of ISS oversize equipment or any equipment used to support the oversize elements when the SSPF / Bldg M7-360 is not available during the operation of this plan.

# K-2 INTERIM PROTECTIVE STORAGE LOCATIONS

- Canister Rotation Facility (CRF) / Bldg. M7-777
- Transportation Storage Building / Bldg. M7-1355
- Operations & Checkout Building (O&C) / Bldg. M7-355
- Reusable Launch Vehicle Hanger Building J262465 (On Tow way Road)

#### K-3 THE PROCESS

- K-3-1 In the event during the movement of the oversize element Convoy, the SSPF becomes unavailable or for some other reason, such as weather, prevents the continuation to the SSPF several alternative facilities are designated as interim storage locations for the Convoy. Paragraph K-2 above identifies those facilities. Should the need to use an interim facility become necessary, the NASA-KSC ISS Logistics & Payload Processing Division will coordinate the availability of the facility for the Convoy prior to the arrival at KSC/CCAFS.
- K-3-2 Once the facility is identified the route to that building will be identified and followed, from the arrival point to the facility. The routes from the arrival points to the various facilities are identified as Enclosures in this Annex.

#### K-4 THE INTERIM LOCATION ENCLOSURE LISTING

**NOTE:** See Paragraph K-5 for individual Enclosures.

ROUTE TO FACILITY	BUILDING #
KSC SLF:	
to O&C Building to Transporter Building to CRF Building to VPF Building	M7-355 M7-1355 M7-777 M7-1469
CCAFS Skid Strip:	
to O&C to Transporter Building to CRF Building to VPF Building	M7-355 M7-1355 M7-777 M7-1469
	to O&C Building to Transporter Building to CRF Building to VPF Building  CCAFS Skid Strip:  to O&C to Transporter Building to CRF Building

ENCLOSURE	ROUTE TO FACILITY	BUILDING #
	NASA-KSC Barge Terminal:	
9 10 11 12	to O&C Building to Transporter Building to CRF Building to VPF Building	M7-355 M7-1355 M7-777 M7-1469
Port Canaveral/Government Dock:		
13 14 15 16	to O&C Building to Transporter Building to CRF Building to VPF Building	M7-355 M7-1355 M7-777 M7-1469
Port Canaveral/Commercial Dock:		
17 18 19 20	to O&C Building to Transporter Building to CRF Building to VPF Building	M7-355 M7-1355 M7-777 M7-1469

**NOTE**: Continuation of the Convoy to the SSPF, when it becomes available, or to some other location will be accomplished by developing an on-scene, real-time contingency plan.

For interim storage locations on CCAFS, prior coordination with the NASA-KSC ISS Logistics & Payload Processing Division is required to arrange for a facility along the Convoy route.

## K-5 THE PROCEDURE

The Enclosures within the following pages in this paragraph describe the individual routes to be taken to arrive at a particular interim protective storage location, depending upon the facility selected. It should be noted that references are made to similar routes that would normally take the Convoy to the SSPF; this is due in part because the interim locations are in close proximity to the SSPF and therefore can, and must be followed to the interim facilities.

# **ENCLOSURE 1**

# KSC SLF to O&C Building # M7-355

- Step 1 Refer to Annex F, paragraph F-5 "Over-the-road / KSC SLF to the SSPF."
- Step 2 Follow and accomplish Steps 1 thru 4.
- Step 3 At the intersection of the NASA Parkway and "E" Avenue, the convoy will turn right onto "E" Avenue and proceed south. The O&C Airlock driveway and entrance is on the right (west) side of "E" Avenue approximately 1/8 mile south of the NASA Parkway.
- Step 4 The Convoy will turn right (east) onto the SSPF Airlock driveway and back across "E" Avenue to the O&C Airlock driveway and enter the O&C Facility High bay Airlock.

# KSC SLF to Transporter Building # M7-1355

- Step 1 Refer to Annex F, paragraph F-5 "Over-the-road / KSC SLF to the SSPF."
- Step 2 Follow and accomplish Steps 1 thru 4.
- Step 3 At the intersection of the NASA Parkway and "E" Avenue, the Convoy will turn right onto "E" Avenue and proceed south to Ninth Street, turn right and proceed west to M7-1355 which is on the left side of the roadway.
- Step 4 The convoy will back left onto the facility driveway and enter the facility.

#### **ENCLOSURE 3**

# KSC SLF to CRF Building # M7-777

- Step 1 Refer to Annex F, paragraph F-5 "Over-the-road / KSC SLF to the SSPF."
- Step 2 Follow and accomplish Steps 1 thru 3.
- Step 3 The Convoy will travel east on the westbound lane of the NASA Parkway to "D" Avenue.
- Step 4 At the intersection of the NASA Parkway and "D" Avenue, the Convoy will turn right onto "E" Avenue and proceed south past Third Street to the CRF building located on the right side of the roadway just before coming to Fourth St.
- Step 5 The Convoy will back right onto the facility driveway and enter the facility.

#### **ENCLOSURE 4**

# KSC SLF to VPF Building # M7-1469

- Step 1 Refer to Annex F, paragraph F-5 "Over-the-road / KSC SLF to the SSPF."
- Step 2 Follow and accomplish Steps 1 thru 4.
- Step 3 At the intersection of the NASA Parkway and "E" Avenue, the Convoy will turn right onto "E" Avenue and proceed south and turning left onto Tenth Street, and proceed east to the VPF complex which is on the left side of the roadway.
- Step 4 The Convoy will back left onto the facility driveway and enter the facility.

#### **ENCLOSURE 5**

# CCAFS Skid Strip to O&C Building # M7-355

- Step 1 Refer to Annex F, paragraph F-8 "Over-the-road / CCAFS Skid Strip to the SSPF."
- Step 2 Follow and accomplish Steps 1 thru 5.

- Step 3 At the intersection of the NASA Parkway and "E" Avenue, the Convoy will turn right onto "E" Avenue and proceed south. The O&C Airlock driveway and entrance is on the right (west) side of "E" Avenue approximately 1/8 mile south of the NASA Parkway.
- Step 4 The convoy will turn right (west) onto the Airlock driveway from "E" Avenue and enter the facility.

# CCAFS Skid Strip to Transporter Building # M7-1355

- Step 1 Refer to Annex F, paragraph F-8 "Over-the-road / CCAFS Skid Strip to the SSPF."
- Step 2 Follow and accomplish Steps 1 thru 5.
- Step 3 At the intersection of the NASA Parkway and "E" Avenue, the Convoy will turn right onto "E" Avenue and proceed south to Ninth Street, turn right and proceed west to M7-1355 which is on the left side of the roadway.
- Step 4 The Convoy will back left onto the facility driveway and enter the facility.

#### **ENCLOSURE 7**

## CCAFS Skid Strip to CRF Building # M7-777

- Step 1 Refer to Annex F, paragraph F-8 "Over-the-road / CCAFS Skid Strip to the SSPF."
- Step 2 Follow and accomplish Steps 1 thru 5.
- Step 3 The Convoy will travel east on the westbound lane of the NASA Parkway to "D" Avenue.
- Step 4 At the intersection of the NASA Parkway and "D" Avenue, the Convoy will turn right onto "D" Avenue and proceed south past Third Street to the CRF building located on the right side of the roadway just before coming to Fourth Street.
- Step 5 The Convoy will back left onto the facility driveway and enter the facility.

## **ENCLOSURE 8**

# CCAFS Skid Strip to VPF Building # M7-1469

- Step 1 Refer to Annex F, paragraph F-8 "Over-the-road / CCAFS Skid Strip to the SSPF."
- Step 2 Follow and accomplish Steps 1 thru 5.
- Step 3 At the intersection of the NASA Parkway and "E" Avenue, the Convoy will turn right onto "E" Avenue and proceed south and turning left onto Tenth Street, and proceed east to the VPF complex which is on the left side of the roadway.
- Step 4 The Convoy will back left onto the facility driveway and enter the facility.

# NASA-KSC Barge Terminal to O&C Building # M7-355

- Step 1 Refer to Annex H, paragraph H-4 "Over-the-road / KSC Barge Terminal to the SSPF."
- Step 2 Follow and accomplish Steps 1 thru 7.
- Step 3 At the intersection of the 3<sup>rd</sup> Street and "E" Avenue, the Convoy will turn left and head north on "E" Avenue. The O&C Airlock driveway and entrance is on the left (west) side of "E" Avenue approximately 1/4 mile northeast of the CRF.
- Step 4 The Convoy will back left (west) onto the Airlock driveway from "E" Avenue and enter the facility.

## **ENCLOSURE 10**

# KSC Barge Terminal to Transporter Building # M7-1355

- Step 1 Refer to Annex H, paragraph H-4 "Over-the-road / NASA Barge Terminal to the SSPF."
- Step 2 Follow and accomplish Steps 1 thru 7.
- Step 3 At the intersection of the 3<sup>rd</sup> Street and "E" Avenue, the Convoy will turn right onto "E" Avenue and proceed south to Ninth Street, turn right and proceed west to M7-1355 which is on the left side of the roadway.
- Step 4 The convoy will back left onto the facility driveway and enter the facility.

# **ENCLOSURE 11**

## KSC Barge Terminal to CRF Building # M7-777

- Step 1 Refer to Annex H, paragraph H-4 "Over-the-road / KSC Barge Terminal to the SSPF."
- Step 2 Follow and accomplish Steps 1 thru 5.
- Step 3 The Convoy will proceed east on the NASA Parkway westbound lane to "D" Avenue, the Convoy will then turn right onto "D" Avenue and proceed south to the CRF building which is located on the right side of the roadway just before coming to 4<sup>th</sup> Street.
- Step 4 The Convoy will back right onto the facility driveway and enter the facility.

# **ENCLOSURE 12**

#### KSC Barge Terminal to VPF Building # M7-1469

- Step 1 Refer to Annex H, paragraph H-4 "Over-the-road / KSC Barge Terminal to the SSPF."
- Step 2 Follow and accomplish Steps 1 thru 7.
- Step 3 At the intersection of the 3<sup>rd</sup> Street and "E" Avenue, the Convoy will turn right onto "E" Avenue and proceed south, turning left onto Tenth Street, and proceed east to the VPF complex which is on the left side of the roadway.

Step 4 The Convoy will back left onto the facility driveway and enter the facility.

#### **ENCLOSURE 13**

# Port Canaveral / Government Dock to O&C Building # M7-355

- Step 1 Refer to Annex J, paragraph J-3 "Over-the-road / Port Canaveral Government Facility to the SSPF," Option A or B.
- Step 2 Follow and accomplish Steps 1 thru 8.
- Step 3 At the intersection of the 3<sup>rd</sup> Street and "E" Avenue, the Convoy will turn left and head north on "E" Avenue. The O&C Airlock driveway and entrance is on the left (west) side of "E" Avenue approximately 1/4 mile northeast of the CRF.
- Step 4 The Convoy will back left (west) onto the Airlock driveway from "E" Avenue and enter the facility.

# **ENCLOSURE 14**

## Port Canaveral / Government Dock to Transporter Building # M7-1355

- Step 1 Refer to Annex J, paragraph J-3 "Over-the-road / Port Canaveral Government Facility to the SSPF, " Option A or B.
- Step 2 Follow and accomplish Steps 1 thru 8.
- Step 3 At the intersection of the 3<sup>rd</sup> Street and "E" Avenue, the Convoy will turn right onto "E" Avenue and proceed south to Ninth Street, turn right and proceed west to M7-1355 which is on the left side of the roadway.
- Step 4 The Convoy will back left onto the facility driveway and enter the facility.

# **ENCLOSURE 15**

## Port Canaveral Government Dock to CRF Building # M7-777

- Step 1 Refer to Annex J, paragraph J-3 "Over-the-road / Port Canaveral Government Facility to the SSPF," Option A or B.
- Step 2 Follow and accomplish Steps 1 thru 6.
- Step 3 The Convoy will proceed east on the NASA Parkway westbound lane to "D" Avenue, the Convoy will then turn right onto "D" Avenue and proceed south to the CRF building which is located on the right side of the roadway just before coming to 4<sup>th</sup> Street.
- Step 4 The Convoy will back right onto the facility driveway and enter the facility.

#### **ENCLOSURE 16**

## Port Canaveral Government Dock to VPF Building # M7-1469

Step 1 Refer to Annex J, paragraph J-3 "Over-the-road / Port Canaveral Government Facility to the SSPF."

- Step 2 Follow and accomplish Steps 1 thru 8.
- Step 3 At the intersection of the 3<sup>rd</sup> Street and "E" Avenue, the Convoy will turn right onto "E" Avenue and proceed south, turning left onto Tenth Street, and proceed east to the VPF complex which is on the left side of the roadway.
- Step 4 The Convoy will back left onto the facility driveway and enter the facility.

# Port Canaveral/Commercial Dock to O&C Building # M7-355

- Step 1 Refer to Annex J, paragraph J-4 "Over-the-road / Port Canaveral Commercial Facility to the SSPF," Option A or B.
- Step 2 Follow and accomplish Steps 1 thru 12.
- Step 3 At the intersection of the 3<sup>rd</sup> Street and "E" Avenue, the Convoy will turn left and head north on "E" Avenue. The O&C Airlock driveway and entrance is on the left (west) side of "E" Avenue approximately 1/4 mile northeast of the CRF.
- Step 4 The Convoy will back left (west) onto the Airlock driveway from "E" Avenue and enter the facility.

#### **ENCLOSURE 18**

# Port Canaveral / Commercial Dock to Transporter Building # M7-1355

- Step 1 Refer to Annex J, paragraph J-4 "Over-the-road / Port Canaveral Commercial Facility to the SSPF," Option A or B.
- Step 2 Follow and accomplish Steps 1 thru 12.
- Step 3 At the intersection of the 3<sup>rd</sup> Street and "E" Avenue, the Convoy will turn right onto "E" Avenue and proceed south to Ninth Street, turn right and proceed west to M7-1355 which is on the left side of the roadway.
- Step 4 The Convoy will back left onto the facility driveway and enter the facility.

#### **ENCLOSURE 19**

# Port Canaveral Commercial Dock to CRF Building # M7-777

- Step 1 Refer to Annex J, paragraph J-4 "Over-the-road / Port Canaveral Commercial Facility to the SSPF," Option A or B.
- Step 2 Follow and accomplish Steps 1 thru 10.
- Step 3 The Convoy will proceed east on the NASA Parkway westbound lane to "D" Avenue, the Convoy will then turn right onto "D" Avenue and proceed south to the CRF building which is located on the right side of the roadway just before coming to 4<sup>th</sup> Street.
- Step 4 The Convoy will back right onto the facility driveway and enter the facility.

# Port Canaveral Commercial Dock to VPF Building # M7-1469

- Step 1 Refer to Annex J, paragraph J-4 Over-the-road / Port Canaveral Commercial Facility to the SSPF," Option A or B.
- Step 2 Follow and accomplish Steps 1 thru 12.
- Step 3 At the intersection of the 3<sup>rd</sup> Street and "E" Avenue, the Convoy will turn right onto "E" Avenue and proceed south, turning left onto Tenth Street, and proceed east to the VPF complex which is on the left side of the roadway.
- Step 4 The Convoy will back left onto the facility driveway and enter the facility.

# KSC International Space Station Oversize Element Transportation On-Site KSC Logistics Plan

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